DEPARTMENT OF AGRICULTURE APPROPRIATIONS, 1953

TUESDAY, MARCH 18, 1952

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met at 10:30 a. m., pursuant to recess, in room F-37, the Capitol, Hon. Richard B. Russell, chairman of the subcommittee, presiding.

Present: Senators Russell, Hayden, Young, and Thye.

AGRICULTURAL RESEARCH ADMINISTRATION

OFFICE OF EXPERIMENT STATIONS

STATEMENTS OF E. C. ELTING, ACTING CHIEF, OFFICE OF EXPERIMENT STATIONS; DR. H. C. KNOBLAUCH, ASSISTANT CHIEF, OFFICE OF EXPERIMENT STATIONS; WALWORTH BROWN, ADMINISTRATIVE OFFICER, OFFICE OF EXPERIMENT STATIONS; AND JOSEPH C. WHEELER, DEPUTY DIRECTOR OF FINANCE, DEPARTMENT OF AGRICULTURE

RESEARCH PROBLEMS

Senator RUSSELL. The committee will come to order.

When we recessed yesterday Mr. Elting and Dr. Knoblauch of the Office of Experiment Stations were discussing some of the achievements in the field of research. I think the Doctor had reached the point where he was prepared to make a general statement. You may proceed in your own way, Doctor.

Dr. KNOBLAUCH. Thank you, Mr. Chairman.

We had concluded the discussion of research contributions and were entering the discussion of research problems. Initial emphasis was placed on the problems associated with the national grassland program which represents a joint effort of the land-grant colleges and the United States Department of Agriculture. The objective of the program is to utilize the uncultivated acres more effectively in meeting our increasing demands for food and feed. The program does not imply taking acres out of cultivated crops and placing them in grass crops but using the vast potential of grassland acres more effectively and efficiently.

Since there are certain areas where the soil will be conserved more effectively through the use of grassland it would include putting those acres into grassland. The problems associated with grassland farming were discussed and summarized by two different groups. One group is the joint USDA and the State experiment stations' grassland

committee which has had several meetings and meets periodically throughout the year. They have surveyed the situation regarding known information on problems associated with grassland farming both from the production and the utilization standpoint and have arrived at the gaps in knowledge of the subject that need to be filled in to meet the current problems in wider acceptance of the grassland program.

The experiment station directors themselves formed a committee, a survey group, to survey the research needs and the majority of States indicated that if the grassland program was to realize its maximum benefit for increased production there were several areas that needed intensified research effort. I am just going to summarize the problem that they indicated.

The first one is in connection with breeding and development of improved grasses and legumes, particularly in areas where we do not now have suitable grasses and legumes, improvement in fertilizer use and fertilizer practices, development of better management systems of our pasture lands, both the native pastures and the irrigated grasslands. A particular area which needs intensified study is in the economics of grassland farming. Just what capital does a farmer need to enter into grassland farming and what is the return that he can expect from those operations so as to obtain the necessary credit for entering into that kind of farming?

Associated with the production problems of grassland are those involved in utilization. That presents one of the problem areas that was brought out yesterday regarding animal diseases and such difficulties as are associated with animal bloat, parasites, methods of proper storage of forage, both in the dry state and as grass silage and the most effective ways of using forage both as silage and as cured hay as well as developing improved grazing practices.

On the animal side there are still large areas in relation to animal disease, particularly in large animals, that need intensive investigation in order to move the grassland program forward successfully.

Those are all of the comments on the grassland program. I would like to conclude the discussion of problems needing additional research with an example in the poultry industry.

Senator YOUNG. May I ask a question on this grassland program? Are you developing new strains of grasses now? Are you working in that direction?

Dr. KNOBLAUCH. This is not new, I should say. The State agricultural experiment stations have been working for a number of years in the area of developing new grasses and new legumes suited to climatic and soil conditions within the several States.

Senator YOUNG. Is this for experimental purposes only?

Dr. KNOBLAUCH. No; this is for actual utilization. We are discussing the research, the developmental phase of the new grass and legume species.

Senator YOUNG. Are you working through the soil conservation programs?

Dr. KNOBLAUCH. The work of the Agriculture Department and the State experiment stations is carried on cooperatively, and it brings together the work of the bureaus and the State stations out in the respective States.

Senator YOUNG. How do you cooperate with the Soil Conservation Service? for example, just what are you doing with them?

Dr. KNOBLAUCH. The program of cooperation and the program of organization and development of State agricultural experiement stations rests with the individual States. They carry on their cooperative arrangements with the Bureaus of the Department through different memoranda of understanding and memoranda of agreement designating the research areas where the work will be done and the contribution that each will make.

Mr. ELTING. You might be interested in the National Foundation seed program, which is an integral part of this program by building up seed supplies that will make it possible to get substantial areas planted to these new grasses and legumes. I think that is a very important adjunct to the research program Dr. Knoblauch has described and it gets at the problem you suggested of how rapidly can we get some of these new things into practical use. That program involves a number of agencies such as the State stations, the Bureau of Plant Industry Soils and Agricultural Engineering, and the Soil Conservation Service in a coordinated seed-production program to capitalize on these improved strains just as rapidly as possible. There is a well-organized effort.

Senator RUSSELL. Well, there has been a great shortage in the seeds of some of the more recent strains that have become so popular. Down in my country everybody has gone crazy about this Kentucky fescue 31. It is difficult to get. Some of it that has been sold as fescue has turned out to be rye grass and they find that other seeds have been mixed in with it. It is difficult to get pure fescue and it is dear when you buy it.

Dr. KNOBLAUCH. That is correct. That is a very important part of this grassland program, making provision for an adequate supply of seeds. Arrangements have been made with industry and a considerable number of private producers in the seed-producing areas to take the new strains when they are ready for seed increase production so that there will be a supply of seed assured.

PROGRESS THROUGH RESEARCH

A chronological summary is presented for your information in regard to the poultry industry and it is used to illustrate how research contributes to the development of an industry.

Senator RUSSELL. I think it would be well to have that made a part of the record.

(The information referred to follows:)

SOME HIGHLIGHTS IN THE PROGRESS OF THE POULTRY INDUSTRY, PRIMARILY THE BROILER PHASE, DURING 30-YEAR PERIOD, 1922–52

1923: Value of sunlight to the growth and good skeletal formation of chicks. Importance of antirachitic factor (vitamin D), in poultry nutrition.
1924: Importance of vitamin A in poultry nutrition.
1926: Unofficial report of 1 million broilers being produced annually.
1929: Commercial use of batteries for broilers.
1929: Partial amine analysis of most common feedstuffs used in poultry rations.
1930: Discovery of importance of vitamin G (riboflavin) in promotion of growth and prevention of nutritional leg paralysis.
1932: Formulation of standard methods of diagnosis of pullorum disease in barnyard fowl by a conference of poultry pathologists.

1934: First official report on the broiler phase of the poultry industry—7,000,000 broilers produced.

Starting point for rapid growth of broiler phase due to (1) Increased efficiency of laying hens, (2) increase in poultry meat consumption per person, and (3) increase in human population.

1935: Chick sexing at hatching time by examination of the rudimentary copulatory organs.

1935: Inauguration of national poultry improvement plan with 34 States participating.

1936: The importance of manganese in the diet for the prevention of twisted rock disease or perosis.

1937: Value of soybeans as a protein concentrate to replace the more expensive animal proteins.

1939: Discovery that sulfa drugs suppress the development of coccidiosis.

1939: Discovery that deep litter would control coccidiosis.

1946: Conference of pathologists to plan coordinated Nation-wide research on the cause and prevention of Newcastle disease.

1946: The growth-promoting possibilities of antibiotics discovered.

1946: Chicken of tomorrow contests started at State level; 44 States were organized for improvement of poultry through breeding.

1947: Conference of research workers of North Central region to establish and maintain a regional poultry testing station to assist in the identification of inbred lines of chickens, the hybrids of which would possess high viability, superior market quality, and economy of meat and egg production.

1947: Automatic feeders developed.

1948: Vitamin B_{12} identified as the main growth constituent of the animal protein factor that is deficient in plant protein concentrates.

1950: 616,000,000 broilers raised, 67 percent of which carried blood from chicken of tomorrow lines.

1952: Conference of pathologists to plan coordinated Nation-wide research on the cause and prevention of the so-called chronic respiratory disease which caused $20,000,000 loss to Del-Mar-Va broiler producers during the last year.

IMPROVEMENT OF CHICKEN BROILER PRODUCTION

Dr. KNOBLAUCH. In 1926 you will note the first unofficial report of 1 million broilers being produced annually. Then we have the development of problems connected with broiler production, nutritional leg paralysis and then the development of pullorum disease and research, working out the solution to that problem, and the development of coccidiosis and the research efforts toward elimination of that problem through the use of sulfa drugs.

In 1935, I would like to point out the first consolidated and cooperative attempt at developing improved broilers through the establishment of the national poultry improvement plan in 34 States. We mentioned the work with antibiotics yesterday, which also represented a forward step in the poultry industry.

Finally, in summary, in 1950 you will see that the broiler industry has reached a production figure of 616 million birds, 67 percent of which carried blood from the improved lines developed through poultry breeding.

Senator RUSSELL. Here a few years ago, Doctor, we had presented a very urgent threat to the whole poultry industry of the Nation in the Newcastle disease.

Dr. KNOBLAUCH. That is correct.

Senator RUSSELL. We made special appropriations, as I recall, over and above the budget for dealing with that problem. I assume that that never reached the magnitude that was expected at the time we had all that testimony or else did you find a very simple way of dealing with it?

Dr. KNOBLAUCH. No, the research is still going forward. There is considerable research on poultry diseases and the Newcastle work has been a large part of the work in several of the experiment stations, in cooperation with the United States Department of Agriculture. There is still some controversy as to the different types of recommended treatment for Newcastle.

As a matter of fact, your speaking about Newcastle points to another disease in 1952, the last item on the summary sheet that I have given you here. There was a group of producers from the Delaware-Maryland-Virginia area in Washington the week before last for a meeting with Department people and several State specialists involved with the so-called chronic respiratory disease or air sac disease which has them very much worried. It is another development just like Newcastle disease. It is going to take concentrated research effort. Perhaps you would like to supplement my remarks Mr. Elting?

As far as Newcastle disease is concerned we still do not have the answer. There is a feeling on the part of people on this air sac disease that there may be a relation between Newcastle and it.

Senator RUSSELL. I has been several years since that happened, but as I recall the testimony, this Newcastle disease had been very destructive of the poultry in the British Islands for a number of years, and they had never found any way to cope with it successfully. I became quite concerned over the reports that it was going to wipe out the chickens here. I do not know whether it fell of its own weight as some things do or whether you developed something?

Dr. KNOBLAUCH. They have a vaccine that is being used for Newcastle.

Mr. ELTING. I would like to add just one word to Dr. Knoblauch's statement there. The Newcastle problem is still serious. There are still many reported outbreaks. The vaccines that have been produced and are widely used are fairly effective, but in broiler production, for instance, it involves two treatments, one inoculation of the very young chicken, and again at about 5 weeks of age in order to reasonably protect broilers, which are marketed at around 12 weeks normally. So it is a stopgap measure at the best. We have not learned how to control the source of infection. Then the problem he has mentioned, a new complicating respiratory disease, which may or may not be related to Newcastle, I think illustrates that we are continually faced with new problems in an area like broiler production in that we seem to solve one problem, and then we encounter a new situation, just as we now seem to have a threat to the whole Eastern Shore broiler area and perhaps other areas.

Senator RUSSELL. Many of the producers in that area think this is Newcastle. I think when this first hit over there they thought it was Newcastle disease.

Mr. ELTING. I think there is considerable doubt as to what it is. Vaccination against Newcastle disease is almost universally practiced over in that area. I am saying that here is a new disease complex which may or may not be associated with Newcastle. It is another expression of a respiratory disorder, but again that whole area is distressed. They claim that last year there was a $20 million loss and that many producers today are being threatened with being forced out of business if we do not control this new threat. This whole presenta-

tion is intended to illustrate, principally, that we make progress by adopting new measures and then suddenly encounter a new complex that can again threaten the industry unless research can solve the problem.

Senator RUSSELL. I do not want you to go into it now, but I wondered if you had prepared a chronological list similar to that for dairy, beef cattle, and hogs? Did you prepare one of those? If you have not done so, I will not ask you for it.

Dr. KNOBLAUCH. We would be glad to prepare one, but we have not done so.

Senator RUSSELL. If it does not require too many days of work, I think the committee would be interested in that.

Dr. KNOBLAUCH. We will do that.

Senator RUSSELL. It will be made a part of the record.

(The information referred to follows:)

SOME HIGHLIGHTS IN THE RECENT PROGRESS OF THE DAIRY CATTLE, BEEF CATTLE, AND SWINE INDUSTRIES

Without attempting an exhaustive survey and with no attempt to differentiate between constributions of the State experiment stations and the Department of Agriculture, both of which have been substantial, the following items indicate the important contribution of research findings to the advancement of the livestock industry:

DAIRY PRODUCTION

Establishment of the minimum vitamin A and vitamin D requirements of cattle.

Recognition of the seriousness of minor element deficiencies, such as copper iron, and cobalt, on certain soil types.

Establishment of the value of nonprotein nitrogen, such as urea, as a substitute for protein in the ration of cattle and sheep.

Development of strain 19 vaccine for the control of brucellosis.

Development of improved criteria for identifying dairy sires which transmit high production of progeny.

Expansion of the dairy herd improvement and proved sire programs.

Advances in ensiling grasses and legumes with consequent expansion in use of grassland products in dairy rations.

Rapid advances in the dilution, preservation, and transportation of semen which has permitted the very rapid expansion of the artificial breeding program.

Development of improved therapy for mastitis, particularly through the utilization of antibiotics.

The establishment of cooperative regional research for the improvement of dairy cattle through advanced breeding methods.

Important advances in reducing sterility in dairy cattle through the efforts of cooperative regional research.

BEEF PRODUCTION

Many of the above-cited advancements in dairy production are equally applicable to beef cattle production. In addition, establishment of the importance of mineral supplements, particularly phosphorus, for range cattle in many localities.

Establishment of high degree of hereditability to such economic factors as rate of gain and efficiency of feed production in beef cattle.

Development of new criteria for selecting sires capable of transmitting these desirable characteristics, particularly the feed-lot performance of bull calves.

Development of a coordinated interregional program for the improvement of beef cattle through breeding, involving cooperation of 37 State experiment stations and the Bureau of Animal Industry.

Development of improved control measures both for internal and external parasites.

SWINE PRODUCTION

Advances in determining the minimum requirements for vitamin A, vitamin D, and various members of the B complex for swine.

Establishing the importance of members of the vitamin B complex, particularly riboflavin, pantothenic acid, and niacin in the rations of young pigs.

The development of proper vitamin supplements to permit the widespread use of soybean meal and other vegetable protein concentrates to replace the more expensive animal proteins in swine rations.

Advances in the control of necrotic enteritis in young pigs.

Establishment of the cooperative regional program for the improvement of swine through breeding.

The development of many new strains of hogs which contain a higher percentage of the desirable meat cuts and a lower percentage of fat than the established breeds. These include both improved strains within the established breeds as well as entirely new breeds based on a program of inbreeding from a crossbred foundation. For example, Minnesota No. 1, Minnesota No. 2, and Montana No. 1 lines.

Discovery of the growth-promoting properties of antibiotics in swine rations and widespread application of these findings.

Establishment of the cooperative regional program to cope with the problem of death losses in baby pigs which still is the greatest problem confronting the industry.

USE OF FEDERAL GRANT FUNDS

Dr. KNOBLAUCH. The next area we would like to consider is the part that the Federal grant funds play in the State agricultural experiment station research programs. The Federal grant funds serve as the nucleus upon which the program is built. At one time they represented a much larger part of the total funds available to the States than they do now. A little over 10 years ago the ratio of State to Federal funds was 2 to 1, and during 1951 the ratio was approximately 4 to 1. We have just passed out a table showing something of the distribution and the use of these funds in a block chart. This represents the first time the information on the State program has been presented in this form.

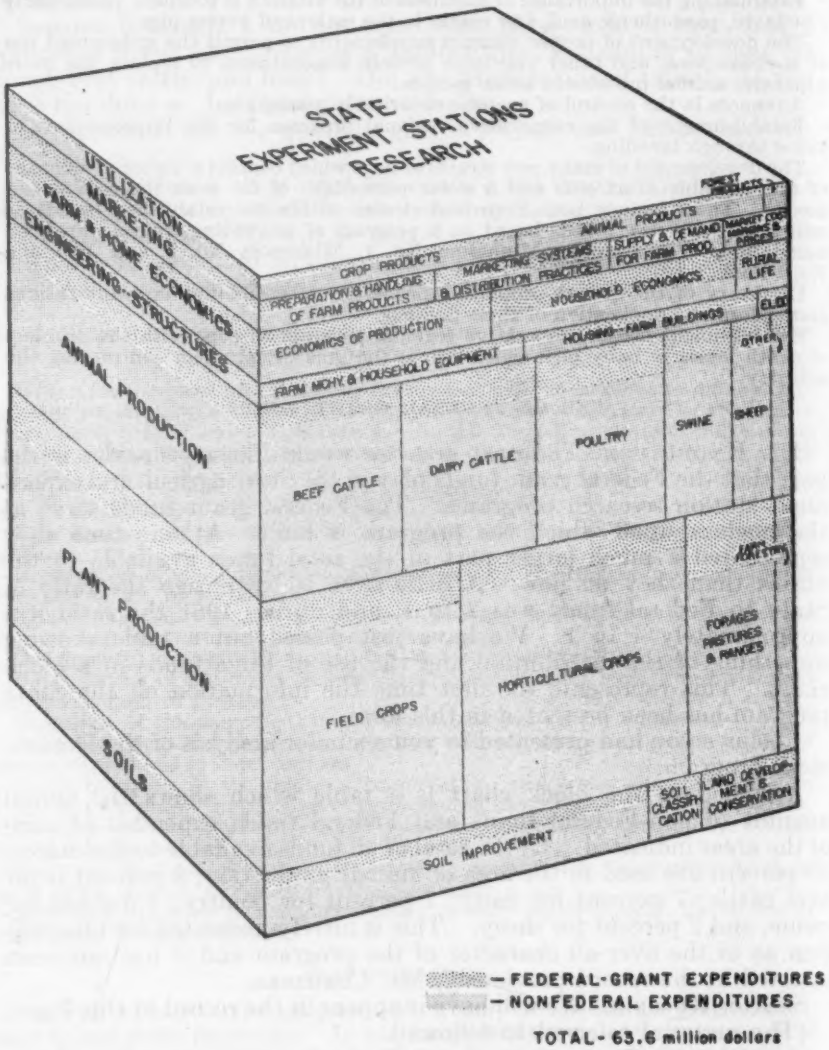
I believe you had presented to you a similar analysis of the Department program.

Attached to the block chart is a table which shows the actual amount of non-Federal funds and Federal funds expended in each of the areas indicated. Of the total of all funds available to the States, 29 percent are used in the area of animal production; 8 percent is for beef cattle; 7 percent for dairy; 7 percent for poultry; 4 percent for swine, and 2 percent for sheep. This is merely presented for information as to the over-all character of the program and it has not been inserted in the record previously, Mr. Chairman.

Senator RUSSELL. We will have it appear in the record at this stage.

(The material referred to follows:)

CHART 1



Functional analyses of the State Agricultural Experiment Stations research programs based on estimated expenditures for fiscal year 1951

State agricultural experiment stations, Federal-grant and non-Federal funds for agricultural research, 1951 expenditures by subject matter content

	Federal-grant funds	Non-Federal funds	Total
1. Utilization:			
Crop products	$142,905	$962,720	$1,105,625
Animal products	237,866	806,808	1,044,674
Forest products	43,144	125,489	168,633
Total	423,915	1,895,017	2,318,932
2. Marketing:			
Preparation and handling of farm products	352,098	627,285	979,383
Marketing systems and distribution practices	508,900	451,484	960,384
Supply and demand for farm products	316,278	321,873	638,151
Marketing costs, margins and price studies	194,834	233,254	428,088
Total	1,372,110	1,633,896	3,006,006
3. Farm and home economics:			
Economics of production	746,519	1,365,647	2,112,166
Household economics	1,084,171	1,125,311	2,209,482
Rural life	200,424	362,894	563,318
Total	2,031,114	2,853,852	4,884,966
4. Engineering—structures:			
Farm machinery and household equipment	283,731	983,728	1,267,459
Housing—farm buildings	321,062	820,857	1,141,919
Farm electrification	7,857	165,896	173,753
Total	612,650	1,970,481	2,583,131
5. Animal production:			
Beef cattle	575,371	4,258,300	4,833,671
Dairy cattle	869,185	3,945,114	4,814,299
Poultry	811,438	3,448,109	4,259,547
Swine	393,870	2,145,646	2,539,516
Sheep	229,255	1,161,847	1,391.102
Other	67,830	802,393	870,223
Total	2,946,949	15,761,409	18,708,358
6. Plant production:			
Field crops	1,418,289	8,300,703	9,718,992
Horticultural crops	1,427,609	9,606,890	11,034,499
Forage, pastures and ranges	1,156,398	3,151,838	4,308,236
Farm forestry	116,402	945,427	1,061,829
	4,118,698	22,004,858	26,123,556
7. Soils:			
Soil improvement	884,953	3,447,691	4,332,644
Soil classification	31,283	464,486	495,769
Land development	136,207	989,384	1,125,591
Total	1,052,443	4,901,561	5,954,004
Grand total	12,557,879	51,021,074	63,578,953

DEVELOPMENT OF EXPERIMENT STATION PROGRAMS

Dr. KNOBLAUCH. I might say that the Federal grant part of the over-all program represents approximately 4,500 different lines of research and under State funds there are about 5,400 individual lines of research. It should be pointed out that these are not separate programs. It is all one program with support from the two different sources.

Now a word or two about the origin and development of the State agricultural experiment station programs. The responsibility for the origin and development of the program rests with the States. The State experiment stations are part of the land-grant college in each

State and as such they are under the administration of the college. and it is the station's responsibility to determine the problem areas where the work will be conducted and the amount of effort that will be put into each of those areas.

Before any of the Federal grant funds can be expended, however, it is necessary for the State agricultural experiment station to develop a research proposal which is submitted to the Office of Experiment Stations for review and consideration in relation to similar work elsewhere and for approval so that they may be able to expend Federal grant funds if it seems so warranted.

I should point out that the responsibility of the State experiment stations is directed toward the solution of local problems.

ACTIVITIES IN THE ADMINISTRATION OF GRANT FUNDS

I would like to discuss now the activities of the Office of Experiment Stations in the administration of these grant funds. I indicated in the development of the program that before any funds could be expended the Office of Experiment Stations had to review and approve the project. Another function is associated with the actual review of research at the experiment stations. Each year a specialist is assigned to review the program of work at each station. Currently most of our office specialists are in the field actually examining the progress of the research, having discussions with the individual research workers to give what assistance they can to strengthen the program and aid in its coordination and integration. The time spent at an experiment station varies with the program. At some of the larger States we will spend as much as 2 or 3 weeks. In a smaller State it is accomplished in a week to 10 days. But each project is reviewed.

In connection with the research review I would like to point out a development that has evolved in the past few years, and that is the desire on the part of many of the experiment station directors and research administrators, that this research review not only cover the Federal grant portion of the program but that it include the entire program regardless of its source of support. Being able to review the entire program has many advantages from the standpoint of being familiar with the program and being able to integrate it and coordinate it much better. In addition it places an increased work load and responsibility on our office, requiring a longer stay at the individual station.

Another development that takes the time of the Office of Experiment Station specialists is in connection with planning of the regional research program. Prior to the Research and Marketing Act we already had a considerable number of regional research studies but the Research and Marketing Act added increased emphasis to approaching problems on a regional basis and led to the establishment of technical subject matter committees in various subject matter areas. The specialists in our office serve on these committees, giving what assistance they can on background work, work at other stations, so as to develop a regional program that will be well integrated and coordinated.

Just a figure or two regarding the change in workload in the Office of Experiment Stations. In 1945, 400 man-days were devoted to the actual review of research in the field, whereas in 1951, 675 days were spent in that activity. In 1947, 121 man-days were devoted to re-

search planning conferences, whereas in 1951, 258 man-days were devoted to research planning. The increased workload now confronts us with about a 20-percent reduction in staff below that which the office had 2 years ago.

ALASKA AGRICULTURAL EXPERIMENT STATION

Mr. Chairman, I would like to turn now to the increase items, that are in the appropriation of payments to the States and Territories for agricultural research. The first increase item is that of $25,000 for the Alaska Agricultural Experiment Station. We might, by way of review, consider briefly the history regarding this item of $25,000. It is the amount needed to bring the payments to Alaska to a basis equal to those in the other States. It was authorized with Public Law 739, passed in 1950.

Senator THYE. Doctor, might I ask this question? What sort of yardstick do you use to measure that with when you say that it is to bring the increase in funds up to the amount given to States? How do you proceed to measure that?

Dr. KNOBLAUCH. The original authorization under these particular acts involved in this legislation, are the Adams Act which provided $15,000 for each State, and the Purnell Act which provided $60,000 for each State, making a total of $75,000.

Senator THYE. A total of $75,000?

Mr. KNOBLAUCH. Yes. The Hatch Act is another act authorizing $15,000, which makes it $90,000 for each State.

Senator THYE. In order to bring Alaska up to the same level as that of the other States, you must increase it by $25,000 to give Alaska a total of $90,000?

Dr. KNOBLAUCH. That is correct. The difference when Public Law 739 was passed was $37,500; $12,500 of the amount was allowed last year.

Senator RUSSELL. This committee has been tremendously interested in agricultural research and development in Alaska for a number of years. Although as one member of the committee I have held to the view that the future of Alaska, and that includes all of the problems pertaining to it, its development as an economic unit, its entitlement to statehood with the other States, in the last analysis it depends on solving the agricultural problems of Alaska. We have not scratched the surface there, and we are not going to build any sound economy in Alaska on Government projects to take people up there to live 12 months and count them in the population, and when the 12 months is over they come out of Alaska. We have done all we could to try to encourage some method of seizing the opportunities for agricultural production for Alaska. We know that in similar areas in the Scandinavian countries they do produce an abundance of agricultural products for the support of the population.

Alaska, in spite of our efforts, has been unable to support the 100,000 or 125,000 people they have up there. They have to import most of the common foods into Alaska. In the much-abused Eightieth Congress, I believe it was, we allowed $700,000 over and above the budget for the construction of buildings in Alaska to house the projects that were necessary. This committee has year after year tried to bring Alaska into line with the States, as you indicate.

Last year we appropriated the full amount of this money. We were unable to prevail on our associates in the other body, but we were able to get a small amount of some kind.

Dr. KNOBLAUCH. $12,500.

Senator RUSSELL. We are greatly concerned about Alaska, and I hope, as I have expressed before nearly every year for 12 or 14 years, that the Department will leave no stone unturned to adapt our methods of agriculture to the soil and climate up in Alaska. We have made a miserable failure up to now. We sent millions of dollars up to this Matanuska project and they have moved away or have gone to Alaska public works projects. The development of Alaska, despite the fact that they have natural resources such as minerals, will depend on the development of an agriculture that can support the population.

The first step has to be agriculture, and the other cannot follow until you gentlemen develop some means of developing agriculture in Alaska that will support the population.

Senator THYE. Mr. Chairman, do we have an experiment station unit in Alaska that would be comparable to one of our smaller States?

Senator RUSSELL. It is much better now since we built that one there about 6 or 8 years ago. It was financed entirely by Federal funds, which has not been the case in all the States. Now we have lagged in the appropriation for the actual experimental work, but so far as your housing is concerned, without having been to all of the States, I would say that Alaska in relation to its population has the best building of all the States in the Union.

Senator THYE. Do they have any projects up there?

Dr. KNOBLAUCH. I have some examples that I would like to discuss. There is a point that I would like to touch in connection with Senator Russell's comment that the physical plant is there and they are ready to go. It is all the same program whether it derives support from direct Federal appropriation, the Federal grant appropriation or territorial funds. They are all consolidated into one program. Last year the Federal portion of that program was cut from $280,000 to $250,000. So the $12,500 that was appropriated just took care of part of that loss.

Senator RUSSELL. Where was that loss incurred?

Dr. KNOBLAUCH. In the direct Federal appropriation item which was reduced from $280,000 to $250,000.

Regarding your question, Senator Thye, there is an organized research program, and it covers the subject matter areas that are under consideration at most of the experiment stations such as soils, agronomy, dairy, animal husbandry, agricultural chemistry, entomology, plant pathology, agricultural engineering, and horticulture. We have a statement of the actual projects that are involved in that program and the nature of the work.

Senator THYE. What seems to be your greatest difficulty in the development of the various agricultural programs up there? What is giving you the greatest amount of trouble, is it feed for the livestock or is it the short growing year that will not permit certain crops to mature which will mature down in the United States like in the central belt of the United States, feed crops such as oats, barley, and wheat?

Dr. KNOBLAUCH. Progress is being made on the matter of production of food and feed crops and information is being obtained on soil management. The area that perhaps presents the greatest problem

is that of obtaining sufficient cleared land. We are learning some of the know-how of producing grain feeds and forage and methods of management and storage of those crops. But serious economic considerations are involved in getting sufficient capital for land clearing, because the land most suitable for agriculture is in fairly dense timber which is not large timber but medium-sized trees and dense underbrush.

Senator RUSSELL. Whatever happened to all that land we cleared up in the Matanuska Valley back in 1930? We spent millions of dollars getting that cleared.

Dr. KNOBLAUCH. That now represents the area under cultivation, but we need greater expansion.

Senator RUSSELL. So one of the problems is to have enough farmers up there to actually try the things that you might develop tentatively in the laboratories; is that right?

Dr. KNOBLAUCH. A lot of these developments are taking place rapidly and production is being increased.

Senator YOUNG. Is there interest on the part of the Alaskan farmers in the work the experiment stations are doing?

Dr. KNOBLAUCH. Yes.

In regard to your question, Senator Thye, the experiment station now has introduced a variety of oats which over a 5-y ar test period produced 70 bushels per acre, which is fair in comparison with what we have in the States. There has also been released a new variety of barley that on a 4-year average produced about 50 bushels per acre. So progress is being made. In regard to the matter of forage there is still no suitable legume that can be grown and will survive in Alaska. Research effort is being directed to get a suitable legum e.

Mr. ELTING. Mr. Chairman, in response to the statement you made about the need for more farmers, some figures came to my attention this morning that I think are significant. Through the cooperation of the Department of Agriculture and the Department of the Interior new areas have just been opened to homesteading in the Kenai Peninsula. We were told that of the first 120 units made available there were 3 applicants for every available farm. Steps are now being taken to open up additional areas which will total perhaps 400 farms. They are certain from the first response that those will be homesteaded immediately, which I think does indicate a growing interest on the part of establishing more farms as potential land is surveyed and made available for homesteading.

Senator RUSSELL. What do they require of the homesteader? Is this something speculative, or do they require him to make a bona fide effort to develop the land? A great many people do not do it. You are going to have to get some tough Swedes and Norwegians and Finns in there if you are to get that thing going.

Senator THYE. Thank you for the compliment, Mr. Chairman.

Senator RUSSELL. That is a fact.

Senator THYE. I am one of those Norwegians, although I do not know how tough I am.

Senator RUSSELL. I can testify to that. If they can get a good many farmers of your determination they will make a success of that. I do not know why they have not emphasized that angle. After the first few go in there and it requires unremitting toil and sacrifice, and a man can see Svenson or whoever it might be who has dug a good

farm out of that wilderness and is making money on it, he will stay in there himself. But too many of them go in there now, and it is a tough life, and they abandon it before they have been in there very long. I think the problem would be on its way to a solution if somebody could go around advertising up in Scandinavia and get some people that have combatted those conditions.

Senator HAYDEN. Mr. Chairman, the saying was that it took the third crop of settlers to really settle the country anywhere west of the Mississippi.

Senator YOUNG. That was true in North Dakota.

Senator HAYDEN. The first two would go broke and finally the third one, with what they had done, he could make a go of it. That is a long, tedious process and is very hard on the settlers, and we have tried to help out in that way. I am curious to know what it costs to clear the land. You speak of this growth of timber and underbrush. If it is brush you cannot get much out of it. If the timber had a value, that would be of some help.

Dr. KNOBLAUCH. Unfortunately the timber in this area does not have much value. I am rather reluctant to venture an estimate of the cost for clearing this land because there is considerable variation in it. When I was there the last time, it was running around $100 per acre.

Senator HAYDEN. Why I ask the question, Mr. Chairman, is that we had the same experience with irrigated land. You just turned a man with a team of horses and himself loose on a piece of desert land and he would starve before he would make a living because you have to dig these ditches and you have to level the land and so forth, and that all costs money. So, we have tried it out experimentally doing prior leveling. With the modern earth-moving machinery, you can get the cost down per acre if you get at it in a big way. It makes it much more reasonable than if a man tries to do it with his own hands. The Reclamation Service tried this out. They opened tracts of land to veterans, but the veteran had to show that he had farm experience and that he had $3,000 and he got in on a drawing. I know in one area where they are coming out fine at this time. They had to help them level the land and it was charged into the cost of it.

Senator YOUNG. Does the Soil Conservation Service furnish machinery for clearing up the area?

Dr. KNOBLAUCH. They have districts up there, but they do not furnish equipment. The districts may make arrangements with private contractors which would assist the farmer.

Senator YOUNG. Are the farmers making money up there now?

Dr. KNOBLAUCH. There are a considerable number of farm units that are very profitable. I have here a report that was carried out by the agricultural economist of the station, and it shows that a considerable number of farmers are making a reasonable return.

Senator RUSSELL. From what we hear about the price of eggs and beef and things like that in Juneau and Fairbanks, why, it seems to me that if a fellow could produce anything at all he could reap a golden harvest.

Senator HAYDEN. It seems to me, if a man could get into a cooperative effort whereby he would get some help in clearing the land, then that could be charged into the cost. As it is now, he pays $1.25 per acre and is required to live on it for the standard 3 years.

If he does that, he gets the land. If he does that just in the raw, he does not have very much at the end of 3 years.

On the other hand, if there were some kind of cooperative effort whereby the cost of clearing could be charged to the land and the man could pay it out over a reasonable term and it could be done with modern machinery, you could get that thing down to a basis where he would get into production that much sooner. Has that been tried?

Dr. KNOBLAUCH. I do not know of any arrangements that have been made like that.

Senator HAYDEN. You can take big caterpillars and drag a lot of stuff off.

Senator YOUNG. You can do it cheaper now with modern machinery than you could years ago when labor costs were considerably less.

Senator HAYDEN. In my country the land is best where the mesquite trees are the heaviest. However, it was a terrible job to tear down the mesquite. The first settlers had to clear off the mesquite. Where a settler had to get in and actually grub out the mesquite, it took him time, but in the end he had the finest farm in the country.

Dr. KNOBLAUCH. Large bulldozer equipment is used in clearing the land. When the larger trees are cut, they push them into huge windrows and allow them to dry awhile and then set them on fire. That is not the most constructive way of doing it from the standpoint of the effect on the soil, but it accomplishes it perhaps in the most expeditious way.

Senator HAYDEN. They had to clear a reservoir not long ago in Wyoming that had timber, and they put a V-shaped saw on the front and just cut trees of fair size by ramming it right through them like a saw and cleared it very quickly.

Dr. KNOBLAUCH. One investigation by the experiment station involves the use of this native timber, what kind of housing can be made for the homesteader so that he can get by without having to go and buy expensive lumber that is brought up from the States when he has this abundance of logs that could be used to build a house for him to live in for the early period of getting established.

Returning to the increase item of $25,000, the plan for use of that involves chemical and nutritive studies of the feed and food crops produced under Alaskan conditions. These has been considerable question over a period of years as to just what is the nutritive value of the vegetables, grain, and other crops and animal products produced under Alaskan conditions. With the physical plant that the station has, it is possible to enter into studies of this kind, requiring more basic types of research than the station has engaged in heretofore.

That is all, Mr. Chairman, that we have on the Alaska item.

Senator RUSSELL. You have another item, I believe?

VIRGIN ISLANDS AGRICULTURAL PROGRAM

Dr. KNOBLAUCH. Yes, sir. The next item is "Virgin Islands research and extension program," in the amount of $100,000. We were asked to prepare the budget estimates on this. I would like to refer to the House discussion and presentation of the bill, Public Law 228, providing for an agricultural program in the Virgin Islands, which was incorporated in the House notes. (See pp. 363-374.)

There was also a report on that bill as prepared by the House Committee on Agriculture. The estimate prepared represents an estimate of the minimum needs to carry a very simple research and extension program to the Virgin Islands. The research would be largely of the adaptation type; no basic research is anticipated. The agriculture of the Virgin Islands has steadily slipped backward during the last 100 years, and there has not been an acceptance or even an infiltration of knowledge of the newer practices in the Virgin Islands such as improved varieties, fertilizer practices, pasture-management practices, and others. It is felt, by selecting those which are known to be of value from southern United States, some from Puerto Rico and elsewhere in the country, and making adaptation trials on the Virgin Islands, that a worth-while contribution might come out of it in being able to make recommendations to the people as to practices that would prove more profitable than the rather antiquated methods that they are now using.

Senator RUSSELL. Just from a bird's-eye view made from an airplane, there does not appear to be much land in those islands that you could profitably operate. Do you have anything to indicate what that is?

Dr. KNOBLAUCH. We have a report that was prepared by the committee of the Department of Agriculture at the request of the Department of Interior to determine the agricultural resources needs and possibilities of the Virgin Islands. We would be glad to file a copy of this report.

In answer to your question I might just cite one example by taking sugarcane; that 100 years ago over 20,000 acres of sugarcane were grown on the Island of St. Croix, and now the total land under cultivation on this island is just a little under 8,000 acres.

Senator Young. Is that due to less rainfall?

Dr. KNOBLAUCH. Well, rainfall is a factor. The population has decreased from around 40,000 around the 1850's, to around 25,000 now.

Senator HAYDEN. Is that due to migration?

Dr. KNOBLAUCH. Yes; the people have moved out. With that change in population there has been an increase in the over-all age of the agricultural worker and a consequent decline in his productivity.

Senator HAYDEN. Has any of this soil that has been abandoned, is it worn out or could it be rehabilitated?

Dr. KNOBLAUCH. It could be rehabilitated. In the last 2 years the Virgin Islands Company followed some of the suggestions that were made from people in Puerto Rico regarding the fertilization of sugarcane, and the yield was greatly increased just by that simple expedient. There has been no research conducted on the islands since the experiment station was turned over to the Department of the Interior in 1932.

Senator RUSSELL. Well, we spent millions down there through the Department of the Interior, and they did not make it go. I do not know why they did not call on the Department of Agriculture to help them. We subsidized a rum factory down there to get it on its feet. The corporation went into bankruptcy, and we replenished it from time to time.

Mr. ELTING. I was going to state in answer to that comment that the report we have filed with you is a direct outgrowth of a request

from the Secretary of the Department of the Interior to the Secretary of Agriculture in 1948 for an appraisal of the whole agricultural situation there and the formulation of some program whereby we could take fuller advantage of the agricultural potential of the islands.

The report is the most careful study that has been made of the situation, and I think largely on the basis of that report Public Law 228 was passed by the last session of this Congress.

Senator RUSSELL. I am always suspicious if one department of government is willing to give up something to another department. I have watched them around here for a good while, and any time they have anything that looks as though it has one-millionth of a possibility of succeeding, they hang on to it. The fact that the Department of the Interior is throwing up its hands and is willing to give it to the Department of Agriculture makes me more suspicious of the project. In my judgment the Department of the Interior had a good chance of success if they had emphasized the tourist industry. They have a wonderful climate down there, and they did build a couple of million-dollar hotels there. But when Interior is willing to give this up to Agriculture I think Agriculture would do well to look a gift horse in the mouth.

Dr. KNOBLAUCH. I would like to point out that the request anticipates certain obligations on the part of the Virgin Islands Corporation.

Senator RUSSELL. They have not yet assumed the debts; have they?

Dr. KNOBLAUCH. No. We are expecting that they will be able to provide the physical plant involved in this program. Otherwise the program cannot be started since the estimate here does not call for any capital outlays; it is for conducting the program. Preliminary discussions have been held with the Virgin Islands Corporation where they expressed a willingness to explore the possibilities of providing those facilities.

Senator RUSSELL. The Virgin Islands Corporation is just another name for the Department of the Interior; is it not?

Dr. KNOBLAUCH. Yes.

Senator YOUNG. What would you do with the $100,000 if it were appropriated?

Dr. KNOBLAUCH. There are several problem areas where we feel some contribution could be made both in research and extension. You mention limited rainfall as a problem, and that is the No. 1 problem.

Senator THYE. I note that their rainfall varies from a minimum of 20 inches to a maximum of 75 inches, but it would average somewhere around 47 inches.

Senator RUSSELL. If we could get an average of 40 inches out in Arizona Senator Hayden says he would have far more farmers out there.

Dr. KNOBLAUCH. The problem on this is that the rainfall is seasonal and frequently falls very rapidly and so it is a matter of conserving it when it does fall so that you will be able to use it for irrigation, agriculture, and also for municipal water supplies. They have huge reservoirs built on the side of hills to catch the rainfall so that it can be stored for use in the municipalities. Soil management practices would be one of the areas of research so that we could get the maximum amount of water in the soil and store the water for use and also the most efficient ways of using it for irrigation.

Senator HAYDEN. It is not so much variation in the season but what something could be grown the year round. If you could get a crop that you could grow in the rainy season and not plant them in the dry, maybe that would help.

Dr. KNOBLAUCH. That is one of the problems. On the higher lands of obtaining suitable pasture species that can be used for grazing animals and also having plant cover on those hills that would conserve the moisture and reduce the high run-off.

Now beyond the moisture conservation and the obtaining of suitable plants for the protection of the soil and for grazing and the development of improved food crops there are problems involved in marketing, finding the best season in which they can have the vegetable crop mature and market it so that it will not be in competition with similar crops produced in the States. They need investigations in those lines.

The extension part of the program would be the educational effort to get improved practices into more widespread operation.

That concludes, Mr. Chairman, the remarks that we have.

Senator RUSSELL. If there are no questions, we thank you gentlemen for your presentation here this morning.

Dr. KNOBLAUCH. Thank you, gentlemen.

BUREAU OF ANIMAL INDUSTRY

SALARIES AND EXPENSES

STATEMENTS OF DR. B. T. SIMMS, CHIEF, BUREAU OF ANIMAL INDUSTRY; DR. S. O. FLADNESS, ASSISTANT CHIEF, BUREAU OF ANIMAL INDUSTRY; DR. A. R. MILLER, ASSISTANT CHIEF, BUREAU OF ANIMAL INDUSTRY, AND CHIEF, MEAT INSPECTION DIVISION; K. A. BUTLER, ASSISTANT CHIEF, BUREAU OF ANIMAL INDUSTRY; DR. T. C. BYERLY, CHIEF, ANIMAL HUSBANDRY DIVISION, BUREAU OF ANIMAL INDUSTRY; ISABEL ALLEN, BUDGET ANALYST, BUREAU OF ANIMAL INDUSTRY; DR. M. R. CLARKSON, ASSISTANT TO THE ADMINISTRATOR, AGRICULTURAL RESEARCH ADMINISTRATION; AND JOSEPH C. WHEELER, DEPUTY DIRECTOR OF FINANCE, DEPARTMENT OF AGRICULTURE

BUDGET SCHEDULE

(Schedules from the justifications follow:)

Salaries and expenses

	Animal research	Animal disease control and eradication	Meat inspection	Total
Appropriation Act, 1952 (adjusted)	$3,250,000	$7,778,928	$12,800,000	$23,828,928
Anticipated pay adjustment supplemental	215,000	400,000	950,000	1,565,000
Activities transferred in 1953 estimates from "Eradication of foot-and-mouth disease and other contagious diseases of animals and poultry"	233,000	338,072		571,072
Base for 1953	3,698,000	8,517,000	13,750,000	25,965,000
Budget estimate, 1953	3,681,000	8,477,000	13,660,000	25,818,000
Decrease (due to partial absorption of pay adjustment costs)	−17,000	−40,000	−90,000	−147,000

Project statement

Project	1951	1952 (estimated)	Decrease (pay adjustment absorption)	1953 (estimated)
1. Animal research:				
(a) Animal husbandry	$2,246,709	$2,151,600	−$9,900	$2,141,700
(1) Swine husbandry investigations	(381,301)	(389,938)	(−1,500)	(388,438)
(2) Sheep and goat husbandry investigations	(373,559)	(353,236)	----------	(353,236)
(3) Horse and mule husbandry investigations	(47,033)	(4,750)	----------	(4,750)
(4) Beef cattle husbandry investigations	(487,523)	(486,576)	----------	(486,576)
(5) Dual-purpose cattle husbandry investigations	(114,076)	(102,961)	(−2,961)	(100,000)
(6) Poultry husbandry investigations	(744,197)	(715,253)	(−1,553)	(713,700)
(7) Fur animal husbandry investigations	(99,020)	(98,886)	(−3,886)	(95,000)
(b) Infectious and noninfectious diseases of animals	942,088	1,019,500	−3,200	1,016,300
(1) Cattle	(522,954)	(579,325)	(−3,200)	(576,125)
(2) Swine	(221,495)	(185,647)	----------	(185,647)
(3) Sheep and goats	(26,919)	(54,242)	----------	(54,242)
(4) Horses	(21,803)	(26,061)	----------	(26,061)
(5) Poultry	(113,882)	(137,004)	----------	(137,004)
(6) Fur animals	(35,035)	(37,221)	----------	(37,221)
(c) Parasites and parasitic diseases of animals	520,680	526,900	−3,900	523,000
(1) Cattle	(153,910)	(158,232)	(−3,900)	(154,332)
(2) Swine	(60,629)	(65,010)	----------	(65,010)
(3) Sheep and goats	(85,358)	(77,964)	----------	(77,964)
(4) Poultry	(38,374)	(37,410)	----------	(37,410)
(5) Fur animals	(15,162)	(15,860)	----------	(15,860)
(6) Treatments	(123,105)	(127,945)	----------	(127,945)
(7) Miscellaneous parasite investigations	(44,142)	(44,479)	----------	(44,479)
Subtotal	3,709,477	3,698,000	−17,000	3,681,000
2. Animal disease control and eradication:				
(a) Eradicating tuberculosis and brucellosis	5,747,479	6,308,710	−40,000	6,268,710
(b) Eradicating scabies	109,243	173,200	----------	173,200
(c) Eradicating cattle ticks	299,291	289,250	----------	289,250
(d) Control of hog cholera and related swine diseases	28,842	32,940	----------	32,940
(e) Determining the existence of diseases in the field	120,581	90,440	----------	90,440
(f) Import-export inspection and quarantine	353,590	366,390	----------	366,390
(g) Supervision over interstate movement of livestock	708,022	748,130	----------	748,130
(h) Control of manufacture, importation, shipment, and marketing of viruses, serums, toxins, etc	410,474	507,940	----------	507,940
Subtotal	7,777,522	8,517,000	−40,000	8,477,000
3. Meat inspection:				
(a) Meat inspection operations at packing plants under the Federal meat inspection service	12,509,257	13,455,700	−90,000	13,365,700
(b) Determination of adulterations and other objectionable conditions in meat and meat food products by laboratory analysis	175,680	189,800	----------	189,800
(c) Inspection of imported meats and meat food products	64,750	70,500	----------	70,500
(d) Bacteriological, pathological, and zoological investigations relating to meat inspection	31,940	34,000	----------	34,000
Subtotal	12,781,627	13,750,000	−90,000	13,660,000
Total obligations	24,268,626	25,965,000	−147,000	25,818,000
Unobligated balance	+469,119	----------	----------	----------
Total pay adjustment costs	----------	[1,779,200]	[+62,655]	[1,841,855]
Total available or estimate	24,737,745	25,965,000	−147,000	25,818,000

Project statement—Continued

Project	1951	1952 (estimated)	Decrease (pay adjustment absorption)	1953 (estimated)
Transfer in 1953 from "Eradication of foot-and-mouth disease and other contagious diseases of animals and poultry, Agricultural Research Administration, Department of Agriculture"	−$502,645	−$571,072		
Transfer in 1952 estimates to "Salaries and expenses, Office of Information, Agriculture"	+2,000			
Reduction pursuant to sec. 1214	+131,000			
Anticipated pay adjustment supplemental		−1,565,000		
Total appropriation or estimate	24,369,000	23,828,928		

ENCOURAGEMENT OF FOOD PRODUCTION

Senator RUSSELL. Dr. Simms, we are very glad to hear the problems with which your Bureau deals.

Dr. SIMMS. I want to say that I enjoy meeting you people every year. I feel as though we are trying to solve our problems together rather than that we are trying to sell you a bill of goods or that you are trying to find a flaw in what we are doing. We still have the same problem every year in trying to help our producers on the farms and ranches of the country to come up with enough good, wholesome food so that our people can be well fed.

PER CAPITA CONSUMPTION OF MEAT

We have heard a great many statements in the last several years about the progress we have been making in agriculture. These statements are true, but in a good many instances we have measured from the year 1935 when our agricultural production was at a very low ebb. If you go back only to 1935 and show what we did in 1950 it looks like a big job. I have a chart here on meat production which does not quite tell that same story. This chart is on our consumption per capita throughout the United States by decades.

In the decade 1901 to 1910 we consumed 153 pounds per person, and it went down to 141 in the next decade, and then down to 137 and then 130, which is the low point. Since 1940 we have picked up our meat production considerably. So that in the decade 1941 to 1950 we consumed, as you can see on this chart, 146 pounds as compared to 153 at the turn of the century. But another thing comes into the picture here.

The first decade of the century we exported about 13 pounds of meat for each inhabitant that we had, so that our total meat production was about 166 or 167 pounds per person back 50 years ago. Now, our last decade it was about 146 pounds; in other words, a drop of about 20 pounds. We are starting this decade, 1951 to 1960, with barely 140 pounds per person the first year, and maybe 143 or 144 this year. So that our meat production at the beginning of this decade is not quite as good as it was last decade.

The point I am trying to make is that, looking at it from a short-term standpoint, we have done quite well in holding our meat pro-

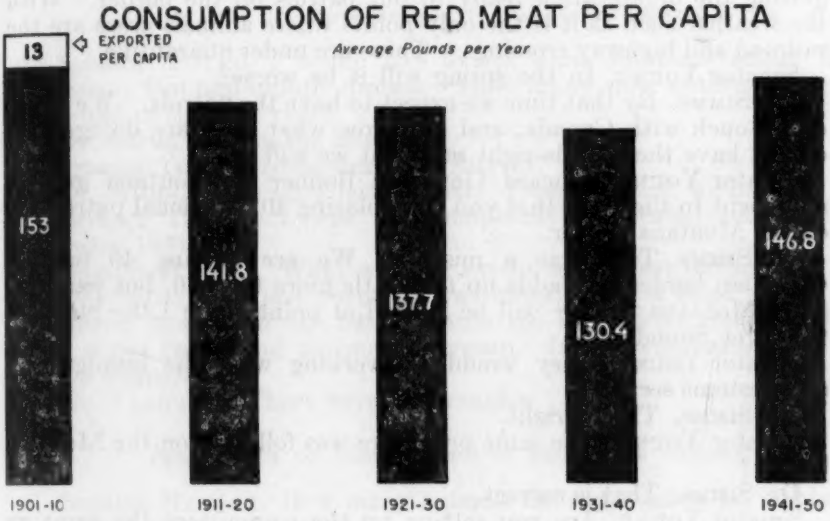
duction up, but looking at it from the standpoint of the half-century we have not done so well.

Senator HAYDEN. Is that due to a change in diet?

Dr. SIMMS. No.

Senator HAYDEN. Do the American people eat more vegetables and other things in lieu of meat—more starches?

Dr. SIMMS. We are now eating and have for the last several years eaten practically all the meat that we produce. I think we will continue to do this if we continue to have prosperity so that the people can buy the meat. What has happened is that we have increased our meat production, but the population of the country has increased faster than our meat production has. So meat consumption per capita has gone down in this stretch of 50 years.



Now we have practically no exports, whereas we used to have a considerable amount.

Senator HAYDEN. There was a complaint during the First World War by the stockmen in my country that the Food Administration had deluded the American people into believing that a bowl of mush carried as much nourishment as a beefsteak, and for that reason they quit eating beef and were eating more mush.

Dr. SIMMS. We are eating practically all we produce, and of course they are obtaining pretty good prices for it.

Senator RUSSELL. I was going to say that.

Dr. SIMMS. I think we will continue to eat all of it. I am bringing this out—that we are producing less meat than we were per capita 50 years ago—to point out the job that we are facing. We are trying to work with our livestock people so that our people can be well fed.

I am sure you are acquainted with our program. You know we are concerned with the research in all phases of livestock production, such as feeding, management, care, breeding, and so on. We are also concerned in research with disease problems, and with control, eradication, and prevention of diseases among our livestock.

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FOOT-AND-MOUTH DISEASE OF CATTLE

CANADIAN BORDER QUARANTINE

Senator YOUNG. You are coming now to a subject which I would like to discuss with you. What are you doing to prevent the spread of foot-and-mouth disease into the United States from Canada? I am very much concerned because the outbreak is only 60 miles north of the North Dakota border.

Dr. SIMMS. We, of course, are maintaining a quarantine preventing importation of animals from Canada and investigating importations made in recent months. Such imports are being closely observed. We have under way also the development of a program to patrol the border. We do not have the patrols on the border as yet, but we are getting the organization ready to put patrols on the border. With the weather such as it is the only points where animals cross are the railroad and highway crossings. These are under quarantine.

Senator YOUNG. In the spring will it be worse?

Dr. SIMMS. By that time we expect to have the patrols. We are in close touch with Canada, and we know what they are doing. We do not have the patrols right now, but we will have.

Senator YOUNG. I heard Governor Bonner of Montana gave a statement to the press that you were placing 40 additional patrolmen on the Montana border.

Dr. SIMMS. That was a mistake. We are putting 40 on the Canadian border. It adds up to a little more than 40, but part will be in Montana. They will be located at points from Lake Superior to Puget Sound.

Senator YOUNG. They would be working with the immigration and customs service?

Dr. SIMMS. That is right.

Senator YOUNG. The same procedure was followed on the Mexican border?

Dr. SIMMS. That is correct.

Senator YOUNG. Are you setting up the committees the same as you did in Mexico?

Dr. SIMMS. We are moving right now to set up an advisory committee that will function in the same way for the entire country that the Mexican committee did for Mexico.

Senator YOUNG. Is that along the lines that the North Dakota Cattlemen's Association suggested?

Dr. SIMMS. It is along the lines that the Cattlemen's Association suggested.

Dr. FLADNESS. You mean the Cattlemen's Association?

Senator YOUNG. Yes.

Dr. FLADNESS. Not quite. It is aimed to have only the one committee cover the whole country rather than concentrate, as we did on the Mexican border.

Senator THYE. Dr. Fladness, what you are concerned with is that you must guard the entire United States because you have the cattle moving not only to the Southwest but to the East as well as to Minnesota and Wisconsin and the Dakotas?

Dr. FLADNESS. Our purpose is to have only one committee.

Senator THYE. Nation-wide?

Dr. FLADNESS. Yes; and have all the border States and Northern States represented.

Dr. SIMMS. Every one of the States west of the Great Lakes that borders on Canada will have a member on the newly constituted committee.

Senator YOUNG. Who will compose the committee membership?

Dr. FLADNESS. Just as we have in the other one.

Dr. SIMMS. It will be livestock men. We have one man from Minnesota now, Mr. Moscrip.

Senator THYE. Mr. Moscrip certainly would be qualified in the animal industry field.

Dr. SIMMS. We have been fortunate in the caliber of the people who have served on this industry advisory committee.

STATUS OF FOOT-AND-MOUTH DISEASE IN MEXICO

Senator YOUNG. I would like to ask some questions about the Mexican foot-and-mouth disease. How many new outbreaks have you had in this last year?

Dr. SIMMS. One in the last year.

Senator YOUNG. None since last August?

Dr. SIMMS. None since last August. Preceding that we had one in December 1950 that was not completely eradicated until early January 1951.

Senator HAYDEN. What was the extent of the last outbreak?

Dr. SIMMS. The last outbreak was contained in a small area. It involved more than one herd because the herds were intermingled, but it did not spread beyond this group. It involved some 1,600 or 1,800 animals.

Dr. FLADNESS. There were four ranches.

PREVALENCE OF FOOT-AND-MOUTH DISEASE IN CANADA

Senator HAYDEN. How many animals are supposed to be involved in the Canadian outbreak?

Dr. SIMMS. They have destroyed some 1,100 or 1,200 animals.

Dr. FLADNESS. 1,200.

Dr. SIMMS. In round figures, and so far as we know that covers all the diseased animals. They have an area of about 2,500 square miles under quarantine. It contains about 25,000 head of cattle.

Senator YOUNG. Foot-and-mouth disease has been prevalent in that area since early last fall?

Dr. SIMMS. Since early winter.

Senator YOUNG. In the summertime that disease might have spread over a vast area?

Dr. SIMMS. Oh, yes.

Senator HAYDEN. You definitely know the source of the infection in Mexico. How about Canada?

Dr. SIMMS. They do not know the source of infection in Canada. The Mexicans said it came in with the bulls. When we got there it was in several States. As far as we are concerned we do not know definitely but that is a supposition very widely accepted.

Senator YOUNG. When will these additional patrolmen be put on the border?

Dr. FLADNESS. They are proceeding now with steps to recruit them because we will recruit them locally in each State, as we have done along the Mexican border—that is, with the exception of the supervisory personnel, who would be the inspectors that we have had on the border to inspect the livestock.

Senator YOUNG. I could not urge you too strongly to get that program under way as quickly as you possibly can. We will have a spring break-up in a short time.

Dr. SIMMS. We will move along as fast as we can, Senator.

Senator THYE. Doctor, have you any explanation as to what brought about the outbreak in the area in Mexico last August?

Dr. SIMMS. No, sir; we do not.

BORDER PATROL FORCE

Senator YOUNG. How many additional men did you put on the Mexican border to patrol?

Dr. FLADNESS. Along the Mexican border, where conditions are a little different, we undertook a detailed patrol of the border and rode every mile of it. We started out with one patrol a day but as a result of representations from various associations, we doubled the patrol and practically made it a full-time daytime patrol, twice a day.

Senator YOUNG. How many did you have?

Dr. FLADNESS. The largest number was 634, including office personnel. It has averaged 400 range riders to this date.

Senator YOUNG. When I was down there it seemed to me that you had more than 1,000.

Dr. FLADNESS. Not at the border.

Senator YOUNG. How many do you plan for the border up in Canada now?

Dr. FLADNESS. We do not contemplate that kind of patrol up there. This would be more in the nature of a roving patrol rather than to try to patrol every mile of the border. Conditions are a little bit different there.

Senator YOUNG. There is quite a movement of livestock through the long border line there.

Dr. FLADNESS. We can depend a great deal on effective handling on the Canadian side.

Senator YOUNG. The Canadians are very good, I will grant that.

Dr. FLADNESS. They are very good law enforcers, there is no question about that. We plan to have our patrol force work like immigration and other officers do, back and forth, consulting with customs and all other agencies, keeping in touch with everything, and keeping their eyes and ears open, and running down any leads as to movement of livestock or any clandestine movements.

Senator YOUNG. You plan to have how many?

Dr. FLADNESS. It amounts to about a half dozen in each State. They will be using motor vehicles.

Senator YOUNG. What is your total?

Dr. FLADNESS. It amounts to about forty-odd men as planned now, including about 35 riders and supervisory personnel. There will be half a dozen in North Dakota, half a dozen in Minnesota, and a few more than that in Montana because of the greater length of the border

and also some in Washington and in Idaho because of the little tip of Idaho that is adjacent to the border.

Senator YOUNG. Would you have any greater concentration at points near the present outbreak?

Dr. FLADNESS. Of course there will be the greatest watchfulness at the North Dakota-Montana boundary, nearest the center of the infection. We have some field men assigned there now to keep their eyes and ears open. Of course, everything so far has been in their favor. Nothing has been moving out due to the winter conditions. One of the things that we can hope, only hope, is that this may be the only center of infection. We certainly cannot say that with certainty even though we were favored with this tie-up caused by the winter months. Canadian officials have alerted the entire Dominion, as of course we have alerted all our people and have been doing so ever since the Mexican break 5 years ago.

Senator HAYDEN. What can you do about disinfecting a stock car or truck used in hauling?

Dr. SIMMS. Oh, yes; we can do that.

Senator HAYDEN. You can make them safe?

Dr. SIMMS. We have disinfected thousands of cars.

Senator YOUNG. Would oats taken from a farm be disinfected?

Dr. FLADNESS. Grain we do not restrict. Hay and straw we do.

Senator YOUNG. Would the grain on farms which had been hit by hoof-and-mouth disease?

Dr. FLADNESS. I would say there would be a very remote chance of danger from grain. A great many years ago when we knew very little about the survival capacity of the virus we did have restrictions on grain, but only from the standpoint of bagging that might have been old. But we dropped that a great many years ago, and we never had any misfortune from it, so history supports the belief that we do not have to fear anything from that quarter.

Senator YOUNG. Are you disinfecting commercial planes coming from Canada?

Dr. FLADNESS. Not as yet unless it develops that there is a greater spread of the disease and then we may have to take care of that. We are taking care of the most essential things, which are preventing entry of animals. Next in importance are the meats and next is the hay and straw, which has been determined to be favorable ground for the survival of the virus. Even in the railroad dining cars we work with the railroads to keep from getting fresh meat across. When you eliminate those hazards you eliminate the greater percentage. It takes a little while to get organized, and we do the most essential things first.

Incidentally, closing the border in Canada has been a greater problem than it was in Mexico because of the enormously greater commerce. For example, they have been shipping 80,000 tons of hay from Canada, and now we are getting letters from the Senators in New England complaining about the lack of hay and their need for a source of replacement for dairy cows. I believe 100,000,000 pounds of fresh meat came from Canada last year. We have been centering our thoughts on getting all of that stopped. Three weeks have gone by, and we are still putting in 60 percent of our time on the telephone straightening this, that, and the other thing out along 3,500 miles of border.

Senator RUSSELL. There is a letter here from Acting Secretary Hutchinson which outlines the program, and I think that it ought to go in the record.

Dr. SIMMS. Yes.

Senator RUSSELL. It will be made a part of the record at this point.

(The letter referred to follows:)

DEPARTMENT OF AGRICULTURE,
Washington 25, D. C., March 13, 1952.

Hon. RICHARD B. RUSSELL,
Chairman, Subcommittee on Agriculture Appropriations,
United States Senate.

DEAR SENATOR RUSSELL: On February 25, 1952, following an announcement of the Canadian Ministry of Agriculture, committees in Congress were informally advised by officials of the Bureau of Animal Industry of the appearance of foot-and-mouth disease in the vicinity of Regina, Saskatchewan. This is written to advise you of the Department's plans concerning protective measure to be undertaken to prevent the entry of foot-and-mouth disease from Canada.

The Bureau immediately instructed its inspectors at border and ocean ports to halt inspections of Canadian ruminants and swine and to take every precaution to prevent entry of such animals and their fresh meat. This temporary action was immediately followed on February 26 by an official order prohibiting the importation of these animals and their products in accordance with section 306 of the Tariff Act of 1930.

At the present time the disease appears to be contained within a fairly well designated area centering around Regina. The Canadian Government has organized forces to carry out measures to control and eradicate the disease. However, extremely adverse weather conditions have delayed slaughter of diseased and exposed animals and disinfection and inspection operations.

Extensive commerce between Canada and the United States has presented many serious problems, more so than along the Mexican border. Truck and rail transportation routes often cross and recross the Canadian-United States border. The Department has received many urgent requests from State governments and livestock interests for special protective measures against entry of the disease.

This highly infectious disease is within 60 miles of the Montana-North Dakota border. Because of the danger of spread of the disease to the United States I have found, and so declared on March 10, 1952, that an emergency exists which threatens the livestock industry of the country. Steps are being taken to utilize the provisions in title II of the Department of Agriculture Appropriation Act, 1952, authorizing transfer from other appropriations or funds of the Department of such sums as are necessary to undertake preventive measures under the act of May 29, 1884, as amended (7 U. S. C. 391; 21 U. S. C. 111–122).

Preventive measures, which must be instituted immediately, include strengthening our inspection force from Lake Superior to Puget Sound in order to enforce the Canadian border quarantine. It is not anticipated at this time that the border force east of Minnesota will require strengthening, but it will be necessary to give closer supervision at eastern points of animal products and materials entering the United States under restrictions in order to see that required procedures are followed. In addition, 12 Bureau veterinarians, in addition to those already so trained, will be given special training in diagnosis of vesicular diseases. Two diseases present in the United States—vesicular stomatitis and vesicular exanthema—are clinically similar to foot-and-mouth disease. Early recognition of foot-and-mouth disease is our best defense against its spread should it gain entry into the United States.

About 45 veterinarians and lay assistants would be required for this work which is estimated to cost $135,000 during the remainder of the fiscal year 1952. On a full-year basis the cost would be about $340,000. This estimate is based on no further spread of the disease in Canada. The work would be financed by advances from corporate funds of the Commodity Credit Corporation in the fiscal year 1952.

We planned to operate the program in Mexico during the 1952 fiscal year within the amount of $7,000,000 (exclusive of additional pay costs and interest) as set forth on page 465 of the House hearings on the Department's 1953 appropriations. We planned to do this even though there was an outbreak of foot-and-mouth disease in Mexico in August 1951, after the $7,000,000 figure was estab-

lished. However, it will not be possible to absorb the additional costs, necessitated by the Canadian outbreak, within that amount.

We thought you should be informed immediately on this matter, and will keep your committee advised of any significant future development the impact of this new outbreak on our inspection and quarantine activities in this country.

Sincerely,

K. T. HUTCHINSON,
Acting Secretary.

Senator RUSSELL. Are there any further questions to be asked on this subject?

Have you concluded your statement?

Dr. SIMMS. I wonder what time you have available? I see that it is after 12 o'clock and I do not know how much more time you have to give us.

Senator RUSSELL. You have given us what you have, and of course you made a complete statement in the House?

RESEARCH FACILITIES FOR WORK ON FOOT-AND-MOUTH DISEASE

Senator THYE. I would like to ask of Dr. Simms about this research laboratory that was discussed and the question of the location. I have reference to the research laboratory on foot-and-mouth disease. What progress have we made?

Dr. SIMMS. Well, there has been no further progress made on that, Senator; since the question was up before the Congress in 1950 and no funds were provided for the laboratory. You will remember that there was an authorizing bill and then there was an appropriation.

Senator THYE. $500,000?

Dr. SIMMS. $500,000 for drawing plans and for securing an option on land. We developed working plans and secured an option but funds were not provided to carry out the purchase of a site and to put up the building. That is the present status. We have tentative plans in the cooler ready to pull them out.

Senator THYE. What is your own opinion about such a research laboratory in view of this outbreak in Canada?

Dr. SIMMS. We still think we need to do research work in foot-and-mouth. We are doing research in Europe in three laboratories. They have given us fine cooperation, and I think the work has been very productive, but we have to work the way they want the work done and according to the facilities they have. All of their laboratories are crowded. In spite of being crowded they have been very gracious and have given us laboratory space. There has been a very extensive outbreak in Western Europe during the last year. These laboratories have had to change their own programs to fit in with conditions existing there.

PREVALENCE OF FOOT-AND-MOUTH DISEASE IN FOREIGN COUNTRIES

Senator HAYDEN. That is what I wanted to inquire about. To what extent does foot-and-mouth disease exist not only in this country but elsewhere?

Dr. SIMMS. In the last year and a half it has been on a world-wide basis. There is a large amount of foot-and-mouth in Europe, a very large amount in South America. Two countries that had been

previously free of foot-and-mouth disease have been invaded in the last 2 years. That makes all of South America infected territory.

Senator HAYDEN. Do we have any in the Near East and Far East?

Dr. SIMMS. Oh, yes. Foot-and-mouth disease is appearing in practically every livestock-producing area in the world except for the United States, Australia, and probably the Union of South Africa and I might say New Zealand. Then there are smaller areas of course like Ireland. The foot-and-mouth picture the world over has been very serious for the last 12 months.

Senator HAYDEN. How many viruses have you found?

Dr. SIMMS. We recognized originally three types, and then they came up with probably about three more out of South Africa, which made six. Then workers began to divide these so-called types into strains, and they have up to at least six strains of A type and maybe seven. So all told with types and strains it will run about a dozen. When you immunize with one vaccine you do not necessarily protect against any of the others.

I was in South America a little over a year ago. They were having a widespread outbreak of foot-and-mouth disease of type A. The type A vaccine they had would not protect against this because this was a new strain of type A, so they had to use a new vaccine. That same thing has occurred in Europe, the strain being what they call type A–5. A regular A-type vaccine does not protect against it. They had a widespread outbreak involving literally hundreds of thousands of animals.

Senator HAYDEN. What becomes of an animal in Europe that is stricken with a disease?

Dr. SIMMS. Most of them recover, and they keep them on the farms. In some countries they do slaughter them. In England of course they slaughter the infected animals. In Switzerland they follow a slaughter program. That keeps Switzerland practically free of the disease. Norway and Sweden have usually followed that principle and have tried to keep their countries completely free. In Germany, France, and Belgium, they simply hold the animals and let them recover and they stay on the farms.

Senator HAYDEN. Do they recover, and how long does it take?

Dr. SIMMS. They do recover. They lose weight very rapidly during the time they have the disease. Milking cows go practically dry in most instances. Hogs become lame and shed their hooves so that they remain lame for quite a time. After 2 or 3 weeks they heal up in the mouth. If their feet are infected they may be severely lame for a fairly long period, maybe 6 weeks, 2 months, or 3 months. So that grazing animals, even though their mouths have healed, have a lot of difficulty walking and getting their food. Many of the dairy cows will have mastitis so that their udders are not satisfactory. A fairly large number of animals are seriously affected even after the disease has left the herd from the standpoint of breeding satisfactorily. Some animals have their heart affected; they may appear to be all right, but a year later they may topple over.

So that while a large percentage of the animals does recover, the expense of the disease is very great because of the economic impact.

We had records on the herds of dairy cows around Mexico City that came back to only 50 or 75 percent of their original production. Even

after the disease was gone a man would be getting only around two-thirds of the production that he had previously.

MEAT INSPECTION WORK

We have a written statement here on some phases of our meat-inspection work. We would like to make it a part of your record.

Senator HAYDEN. You of course are not aware what action has been taken by the House so that you would make the same presentation that you made there.

(The statement referred to follows:)

STATEMENT OF DR. BENNETT T. SIMMS, CHIEF, BUREAU OF ANIMAL INDUSTRY, AGRICULTURAL RESEARCH ADMINISTRATION

In view of the particular interest at this time in the provision in the 1952 Department of Agriculture Appropriation Act for reimbursement by packers for expenses of meat inspection in excess of those which can be met from the meat-inspection appropriation, I would like to give you some background information.

The 1952 budget estimates included a request for an increase of approximately $600,000 for meat inspection. This increase was recommended because of anticipated increased demands for Federal inspection and to maintain an adequate inspection staff to meet demands. In lieu of the increase requested, the proviso to cover needs in excess of the appropriation was enacted.

While the Bureau determines the number of inspectors required, production schedules of the meat-packing industry create the demands on the Bureau for its meat-inspection service. The number of meat-packing plants that require the inspection and the volume of production in each plant are the determining factors in deciding how many inspectors are needed to man the inspection positions in the meat-packing plants. Each inspection position is integrated in the production line of the inspected meat-packing plant. Meat inspection is not a mere licensing arrangement. It is the operation in the production line which assures that meat is produced in accordance with the precepts of consumer expectancy as they are guaranteed by the Federal Meat Inspection Act.

Since approximately 97 percent of the appropriation for meat inspection is used to pay salaries, inadequate appropriations result in a reduction in the number of inspectors available to service the meat-packing industry. The proviso that the Department may receive reimbursement for inspection service in excess of that which can be paid from appropriated funds serves the purpose of making it possible for the management of the inspected establishment to maintain full production schedules regardless of the amount of inspection service which could be made available to him with appropriated funds.

The meat inspection appropriation for each of the fiscal years 1951 and 1952 was $12,800,000. The Third Supplemental Appropriation bill for 1952 would provide an additional $936,000 for the fiscal year 1952 to meet increased pay costs under Public Law 201, approved October 24, 1951, which if appropriated would make a total 1952 meat-inspection appropriation of $13,736,000. The 1953 budget estimates include $13,660,000 for meat-inspection work, a reduction of $76,000. In addition to the appropriation recommended for 1953, it is currently estimated that reimbursements from packers in the amount of $600,000 would be required to meet inspection demands over those which could be met with appropriated funds. This is in addition to anticipated overtime reimbursements under a 1919 statute. If this $600,000 were not available by reimbursement, the direct appropriation should be increased by that amount to maintain an adequate inspection.

We do not feel that inspection has deteriorated under the reimbursement proviso inasmuch as we have continued to employ personnel of the same type as in former years and under civil-service rules and regulations. Our meat inspection service continues to be recognized internationally as the best service of this type offered anywhere in the world.

Dr. SIMMS. We would like to call your attention to specific changes in the budget for the handling of our foot-and-mouth-disease research.

That has been an activity, as you know, that was supported from funds available to fight the disease in Mexico. We are recommending now that the funds be provided in our regular budget because it can be budgeted. We are asking for the same amount that we have been using in the past.

A second item that we ask be transferred is our inspection at stockyards and in the field in this country. The inspection work at stockyards has been supported in part by funds that were available from the Mexican program. We need that now put on a regular appropriation basis. That is in the budget presentation, of course, but I did want to call attention to those.

Senator HAYDEN. Does that conclude your general statement?

Dr. SIMMS. That concludes my general statement. We thought we might discuss one or two of the requests that have come in. I would like to make it very brief.

Senator HAYDEN. Go ahead.

REQUESTS FROM INDUSTRY FOR ANIMAL DISEASE RESEARCH

Dr. SIMMS. I would like to call attention to the fact that we constantly get requests for help, we always have a new problem. Within the last month, for instance, we have had very urgent requests for help from the broiler people. The broiler producers have developed a big industry in this country in the last 20 years. They are having very heavy losses in the Virginia-Maryland-Delaware area, called the Del-Mar-Va area. They have been quite insistent that we give them help, and we are attempting to do what we can.

Senator HAYDEN. Is it some epidemic?

Dr. SIMMS. It is loss from diseases; probably three or four diseases are concerned. But the forces that we have and the forces that the States have have not been able as yet to determine what is causing all of these losses. Consequently we do not have any recommendation for prevention of these losses. Within the last week we had a second visit from a group of sheepmen from the Northwest who are wanting help with abortions in their breeding ewes.

The most serious report was that of 600 or 700 abortions in a band of 1,000 ewes. That of course is the extreme. However, we have had in the last 2 or 3 years several requests for help in these abortion problems. The sheep industry in Idaho, Montana, Washington, Oregon, and Wyoming has been making the requests. We have had requests just recently for additional help in some of the problems in the swine industry. A disease known as atrophic rhinitis which affects the sinuses and the head of the hog, is killing a good many of them and leaving a good many of them deformed. It has apparently become more serious in the last 18 months than it was.

I call attention to these facts because they are problems brought to us with the question, "Why can't you help us?" Of course when there is a fire burning they want it put out. It is not very satisfactory to a sheepman who has had 700 abortions out of 1,000 ewes to be told that nobody is working on the disease and that we do not know whether there will be an answer for him next year or 5 years from now or 10 years from now.

Senator THYE. Is it a new disease, Doctor?

Dr. SIMMS. No, sir.

Senator THYE. It is similar to that which is found in the cow?

Dr. SIMMS. It is not caused by the same organism that we find in cattle. It is not new in this country so far as we know. We do know that we had abortions in sheep before this. Whether it is a new infection causing the trouble this time we do not know. Some of the veterinary research workers in Scotland have apparently shown in the last 2 years that they do have a type of abortion in sheep there that has not been described in the past. It may have been there, but it was not described.

Senator THYE. Have you assigned any of your veterinarians to make a specific study of that outbreak?

Dr. SIMMS. We do not have anybody working on it but some of the universities in the area are working on it, and we keep in touch with them.

Senator THYE. I see.

Dr. SIMMS. We ourselves do not have anyone working on that just the same as we do not have anybody in the Del-Mar-Va Peninsula in connection with the poultry problem. We should be doing something to try to help them.

This statement with the one we had in the House and the statements here, I think, cover the main points.

Senator HAYDEN. Will this be the total representation from your Bureau?

Dr. SIMMS. Yes, sir. You might want to go more into discussion. We have in the record here, of course, the Mexican situation.

POULTRY STATION AT GLENDALE, ARIZ.

Senator HAYDEN. I have a little special situation down in Arizona that I would like to discuss with the poultry men if I might. Perhaps the best way to present it to save time is to use some notes that I made when I was home. This is with respect to the poultry station at Glendale, Ariz.

Dr. SIMMS. Dr. Byerly, who has charge of our animal husbandry, is fully acquainted with the facts down there.

Senator HAYDEN. These are the facts I developed while home. There are 45 buildings on the 20 acres of land at the station. In the 36 buildings used only for housing chickens, there is room for 24 groups of young chickens while they are under the brooders and 50 groups of laying chickens. Fifteen more groups of young chickens can be brooded in the battery brooders on hand.

I might say for the benefit of the Senator from Minnesota that I have been greatly interested in this station for a number of years because it serves a more or less arid area and hot area of the country that extends about 1,500 miles from Texas to California where the conditions for raising chickens are totally different from those in the humid East and in the cold parts of the United States. The station was established there and has made, I think it will be conceded, a very fine record under a very competent superintendent.

Because of the chickens, some employee or employees must work on every day of the week. Government employees are supposed to work 40 hours a week. This means that when any Government employee at the station, other than the person in charge, works on Satur-

day, Sunday, or a holiday, he must be either granted compensatory time off or be paid for overtime work.

In addition, all full-time employees are supposed to receive 208 hours' annual leave each year, exclusive of Saturdays, Sundays, or holidays, and the employees at the station have been employed long enough to receive the entire 208 hours.

During the fiscal year 1951 it was a nearly impossible task to run the station adequately on an allotment of $25,000, plus $1,000 that could be spent only for maintenance and repairs. There were four full-time employees and one part-time employee who worked mostly on Saturdays and Sundays. There was no employee to do clerical work or typing. During the fiscal year 1951 there was also expended about $4,000 made available through a memorandum of understanding with the University of Arizona. This memorandum of understanding involves an arrangement whereby, in addition to permitting cooperative experiments, the proceeds from the sale of eggs and meat chickens at the station can be used for the functions of the station rather than reverting to a general fund in the United States Treasury or some other general fund in the Government.

Under the present procedure all buyers of eggs or meat chickens at the station make out checks in payment to the Treasurer of the United States. The checks are sent from the station to the Bureau of Animal Industry in Washington, cashed, and then checks for the same amounts are made out to the USDA poultry fund, care of the University of Arizona, and then assigned to the station. So they have had some little help to the extent of about $4,000 a year. The difficulty is that in a lot of experiments they destroy the eggs to make the proper kind of experiment. That, of course, has made it difficult to do the things they want to do because you do not have the eggs and you do not have the poultry to sell, which is a great handicap.

The allotment of this station was cut to $20,000, a cut of 20 percent, last year. One of the employees employed there was transferred back to Beltsville. The Bureau of Animal Industry then informed the station that another Government employee could not be obtained to replace him.

Of the $20,000 allotted, more than $14,000 will be expended for the salaries of the three Government employees and such fixed charges as electricity, water, and telephone. That leaves less than $6,000 for the purchase of feed stuffs and other necessary expenditures.

Some funds will be available because of the memorandum of understanding, but the amount is dependent largely on such unpredictable things as egg production of the layers and the selling price of their eggs. It is not possible to conduct many experiments under conditions which necessitate that an appreciable income be derived from the chickens involved in them. No experimental station should be expected to conduct experiments under such conditions.

During the past year at the station a fairly large number of laying chickens were involved in experiments centering around the inclusion of cottonseed meal in their diets. The results should be of benefit to the poultry and cottonseed industries. Many thousand eggs were incubated or broken open and their yolks and whites examined in the experiments. The experiment should be repeated because more data are needed. How can many experiments of this nature be conducted if income from the sale of eggs must be used in running an experiment station?

The situation, it appears to me, is that there should be enough money allocated to the station either to let it function properly and not require the head of the station to do his own stenographic work, considering the man that he is and the results that he has produced in the past in that area and the United States. I want to insist if there is not some way that that could be taken care of.

Dr. BYERLY. May I say, Senator, that I wish we had you as an advocate for all our projects. You said that there had been a fine job done at Glendale. You could repeat that for any one of a dozen of our stations which are required to work with a minimum of funds and a maximum of effectiveness. As for a cure of this condition, with our present allotment we will be able to continue at the present rate our work at Glendale. If we increased our support to Glendale it would mean a reduction at some other point.

Under the cooperative agreement with the State of Arizona all chickens and eggs produced are the property of the State. Since the State has no facilities for handling the sale of surpluses, they have asked us to do it for them. Under Federal statute all funds handled by a Federal employee in his official capacity must be deposited in a Federal depository. The funds are then transmitted to the State by Federal check.

1952 APPROPRIATION CUT

Senator HAYDEN. What were you required to absorb last year?

Dr. BYERLY. We were required to absorb 10 percent in Washington, Beltsville, and regional headquarters. That amounted to $138,000. In addition we were required to absorb another $39,000, or a total of $177,000. There was a vacant position at Glendale, and it was not filled.

Senator HAYDEN. You face a situation there where it is utterly impossible for the station to do the work that it has been doing. I think you can see that the gentleman who is in charge there has been doing a fine job.

Dr. BYERLY. Senator, I support every word that you have said.

Senator HAYDEN. Did you ask for any more money in the budget? I am talking about the request made by the Department of Agriculture for the support of these poultry experiment stations?

Dr. BYERLY. The Department permitted us to go to the Budget Bureau with one item of increase for forage utilization, one for preparation of feed composition tables.

Senator HAYDEN. The way it stands now so far as the budget is concerned they are recommending merely the amount of money that was actually expended last year?

Dr. BYERLY. That is correct.

Senator HAYDEN. The cut that you had to take must continue to be absorbed?

Dr. BYERLY. That is correct.

Senator RUSSELL. Is that clear? About the cut, I thought in preparing that amendment for the reduction of personnel in the Department of Agriculture that we were very careful not to take anybody out of the actual research work at the field locations—at least that was the purpose of the amendment. Just how did you happen to lose money for actual research work at Glendale under the amendment?

Dr. BYERLY. The Division of Animal Husbandry lost $177,000, which was apportioned in part according to the formula required at the regional and national headquarters. We could not take that cut except by the curtailment of research. We absorbed it by the abolition of vacancies so far as we were able. We had to introduce reduction-in-force procedures I think involving perhaps 20 people. These people were selected at those points where we felt the work would least suffer. It is fortunate that Mr. Heywang at Glendale is such an able person.

Senator HAYDEN. I know the man works long hours, Sunday and every other day, and has to do his own typing when it comes to writing a letter. He has not had any clerical assistance.

Dr. BYERLY. That is correct.

Senator RUSSELL. I am completely familiar with the fine work that is being done in Glendale. Senator Hayden has made that situation very clear to this committee. However, that does not answer my question. Do you mean that under the formula that was placed in the agricultural appropriation bill last year that you laid off someone at that Glendale station. If you did it is my judgment that you went directly against the intent of Congress because the Congress said that those reductions would be made in the administrative personnel and it would be made in the Washington office and the regional offices but not in the research work that was being carried on in the county offices and other field locations anywhere in the Department of Agriculture.

So if any lay-offs were made by virtue of that formula that was in the bill last year in research, I want to know about it.

Dr. BYERLY. Senator, the Division of Animal Husbandry suffered from the $138,000 in that formula. The total cut applied to the Division of Animal Husbandry was in excess of that by about $39,000.

Senator RUSSELL. Yes; there was some reduction made in your research program as such. As I recall, the House cut you pretty deeply and we restored some of it and in conference you got some of it.

Dr. BYERLY. We did not get any of it for animal husbandry research, sir. The restoration of $49,300 was earmarked for research on infectious and noninfectious diseases in the conference report.

Senator RUSSELL. You then saw fit in your allocation of the cut, which as I recall was not very large, not over $50,000. I am not talking about your administrative cut now. What was your cut in the direct appropriation?

Dr. BYERLY. The total cut was $177,000, of which $138,000 was according to the formula, as I recall.

Senator RUSSELL. That is right. So in that reduction then you saw fit to decide that Glendale should give up some research men, is that right?

Dr. BYERLY. That is correct.

Senator RUSSELL. You thought that Glendale could stand it better than other stations?

Dr. BYERLY. That is correct.

Senator RUSSELL. I just want to get it straight on this formula because if you did it under the formula in the bill that is against the intent of the Congress.

Dr. BYERLY. Senator, may I say that this $138,000 could not be absorbed in the Division of Animal Husbandry without laying off some people.

Senator RUSSELL. I want to get the facts on that. I want to know how many people you laid off who were doing research work. The formula said that you would lay off people in the Washington office and in the administrative work. It said that you would lay them off in regional offices and in the State offices, but there was no reference whatever in that directive with regard to laying off anyone who was actually doing research work at field locations and the Congress did not intend for that to be done. We were endeavoring to protect the research work in that formula and there was nothing in there in my judgment that would justify laying off anyone actually engaged in research work at the field stations.

(The information requested is as follows:)

The 1952 Department of Agriculture Appropriation Act carried a reduction of $177,000 in animal husbandry work. Section 409 of the act required that $138,000 or 78 percent be applied to salary reductions at the national and regional levels. The table below shows that 86 percent of the total salary reduction was actually applied at those levels, only 14 percent being applied at the local level. The number of positions dropped at each level is also shown.

Level	Portion of 1952 reduction applied to salaries (percent)	Number of positions dropped [1]
1. National headquarters (including Agricultural Research Center, Beltsville, Md)	68	37
2. Regional or area offices, laboratories, stations, and other comparable units	18	17
3. Field work such as county offices, small field locations, and research stations, etc	14	11

[1] Some vacancies were not filled and some personnel were separated, transferred, or reassigned.

Four field stations did not lose animal husbandry personnel. Two of these stations had three each such employees, one had two employees, and the other one employee.

Mr. WHEELER. Senator Russell, your recollection is correct that the formula exempted people by and large in the field level, but the so-called regional or comparable level includes, for example, all of the work at Beltsville.

Senator RUSSELL. That is right.

Mr. WHEELER. All the research work done in Beltsville was included in the reduction under the formula, and research workers were affected there.

Senator RUSSELL. We did not intend to be laying off people in the field stations doing research work.

Mr. WHEELER. That is correct.

Senator RUSSELL. It is my understanding that it was applied to Glendale.

Mr. WHEELER. The folks at Glendale were not laid off by the operation of section 409, but were released only because the specific cut in the appropriation for animal research exceeded the 10-percent cut under section 409. The field level was affected to the extent that Dr. Byerly has indicated because of the additional cut. Section 409 did not cause the lay-off at Glendale.

Senator RUSSELL. I want to make that perfectly clear.

Mr. WHEELER. Yes, sir.

Senator RUSSELL. You are in the budget office down there, and these gentlemen run the work in the field, and they say they did lay off somebody.

Dr. BYERLY. A vacancy occurred in the Glendale station, and the man was subprofessional. He was assistant to the one research man there. The vacancy was not filled. This was from the cut-over and above the formula. At Beltsville there were several professional research workers.

Senator RUSSELL. I am not talking about Beltsville. Of course, we were faced in this committee with having to cut everything 10 percent. This committee spent hours working trying to find a solution. It took a great deal of work to evolve that formula to try to prevent getting down to the actual working level in the field on research work. That was one of the purposes of it, and I thought it was a great victory rather than having 10 percent of personnel across the board, to confine it to the administrative work and confine it to the Washington office.

I should be very much disappointed if someone had been kept on administrative work and somebody in research work had been laid off after Congress had undertaken that work to get that formula set up.

Mr. WHEELER. Mr. Chairman, I would like to assure you that the full cuts required by section 409 were carried into effect. The cuts under section 409 were applied to "National headquarters, including the agricultural research center, Beltsville," "Regional or area offices, laboratories, stations, and other comparable units," and "State offices, laboratories, and other comparable units." You will recall that legal limitations were not written into each item in the bill. In cooperation with the staff of both committees and the General Accounting Office, we devised procedures for implementing the provisions of section 409. We administratively advised each of the bureaus of the personnel limitations that would apply to each appropriation to the levels of service which were required to be reduced under the formula.

I am sure the record will show that we established detailed financial controls to put into effect the reductions required by section 409. I think the difficulty in this particular case is that, even after having imposed the 10-percent cut at the upper levels of the organizational structure, the money cut in the particular item went even beyond that. Therefore, it was necessary to use discretion in attempting to assess that additional cut in the least harmful manner to the program as a whole.

Senator RUSSELL. Well, of course Senator Hayden might not agree with you, but in your discretionary power I do not expect you to restrict it to Glendale.

Senator HAYDEN. Was the same thing done in the other experiment stations and was one removed from each of them?

Dr. BYERLY. No, sir; that was not done, but the cut severely curtailed us, as I pointed out, 65 positions out of about 500. We closed one experiment station. I believe the records will show that we declared in our Senate and conference notes that we might have to close Glendale. We did not close Glendale because we were able to work out this solution.

Senator HAYDEN. I know it is a physical impossibility for men working there to do good research and be compelled to do as much manual labor and stenographic work as is imposed on them now. A man will do it for patriotic reasons—work Saturdays, work Sundays, work early, and work late—but it is an unbearable burden that I do not think a Government employee of that character and ability ought to be put to.

Dr. BYERLY. Mr. Heywang is an outstanding example of a good Government employee, but he is by no means unique.

Senator HAYDEN. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 12:45 p. m., Tuesday, March 18, 1952, the subcommittee recessed to reconvene at 10:30 a. m. Wednesday, March 19, 1952.)

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